Appl. No. 10/075,075

Amdt. dated: March 4, 2005

Reply to Final Office Action of October 4, 2004

Amendments to the Specification

Please amend the linking paragraph which begins on Page 3, line 28, as follows:

In another aspect, the present invention relates to an isolated peptide which comprises the domain of KChAP that binds to Kvα subunits, particularly the Kvα subunits Kv 2.1, Kv2.2, Kv4.3 and to Kvβ subunits, particularly Kvβ 1.2. Such domain is hereinafter referred to as the "Kvα/Kvβ binding domain". As used herein, peptide means a fragment of the KChAP protein and accordingly is smaller and comprises fewer amino acids than the KChAP protein. In one embodiment, this peptide comprises the amino acid sequence, SEQ ID NO: 5, extending from T309 through L407 as shown in Figure 2-3 and SEQ ID NO:4, and the amino acid sequence, SEQ ID NO: 7, extending from T309 through L407 as shown in Fig. 3 2 and SEQ ID NO;2. The present invention also relates to allelic variants or derivatives of the amino acid sequence set forth in SEQ ID NO's: 5 and 7.

. . . .

Please amend the paragraph beginning on Page 11, line 20, as follows:

The full length cDNA encoding KChAP, designated herein as the "KChAP gene" is shown schematically in Figure 1. The sequence of the KChAP gene is shown in Fig. 2 and set forth in SEQ ID NO: 1. Hydropathy analysis showed no putative membrane spanning regions in KChAP. The open reading frame of the KChAP gene predicts a protein of 574 amino acids and having the sequence shown in Fig. 2, SEQ ID NO: 2. The open reading frame of the KChAP gene is flanked by 219 base pairs of untranslated sequence on the 5' end, and 980 base pairs of 3' untranslated sequence. The 980 base pair sequence as indicated by the thin lines in Figure 1. The Kvα/Kvβ binding domain on the KChAP gene has been localized to the region which encodes amino acids W310 through L407. The Kvα/Kvβ binding domain of rat KChAP has the amino acid sequence set forth in SEQ ID NO: § 7. KChAP-Y extends from amino acid W310 of the full-length KChAP protein through the poly A tail at the 3' end.

Please replace the sequence listing that was filed with the Patent Office on February 13, 2002 with the corrected sequence listing which is attached hereto.